

Technical questionnaire

Solanum lycopersicum L.

Tomato

Version 16 - Publication date: 11/07/2024

Mandatory fields or sections are marked with an asterisk (*)

04 . Information on the breeding scheme and propagation of the variety

04.01. Type of material *

- hybrid
- cross-pollinated variety
- self-pollinated variety
- parent line

04.01.01. Parental line use *

In many cases there is a link in morphological expression of characteristics between the parent line and its hybrids. Therefore, it is recommended to provide information about the identity of hybrid varieties where the parental line is used. This makes the organisation of the technical examination more efficient and lowers the risk of an additional year at the costs of the applicant. This information will be dealt with confidentially and only share with the examination office in charge of the technical examination.

Please indicate for the production of which hybrid variety(ies) the parental line is used

*

04.02. Method of propagation of the variety *

- seed propagated
- vegetatively propagated

04.03. Other information on genetic origin and breeding method

Please specify

05 . Characteristics

(the number in brackets refers to the corresponding characteristic in the UPOV Technical Guidelines, please mark the state of expression which best corresponds).

(2) (G) 05.01. Plant: growth type *

- 1 - determinate

Campbell 1327, Prisca

- 2 - indeterminate Marmande VR, Saint-Pierre, San Marzano 2

(6) 05.01.01. Only varieties with plant growth type indeterminate: Plant: height *

- 1 - very short Cherry Belle
- 2 - very short to short
- 3 - short Carson, Despina
- 4 - short to medium
- 5 - medium Brooklyn, Buffalo, Vision
- 6 - medium to long
- 7 - long Classy, Clarence, Climberly, Massada
- 8 - long to very long
- 9 - very long Day Dream, Minired

(10) (G) 05.02. Leaf: type of blade *

- 1 - pinnate Mikado, Pilot, Red Jacket
- 2 - bipinnate Lukullus, Saint-Pierre

(12) 05.02.01. Leaf: intensity of green colour *

- 1 - very light
- 2 - very light to light
- 3 - light Macero II, Poncette, Rossol
- 4 - light to medium
- 5 - medium Lucy
- 6 - medium to dark
- 7 - dark Allround, Daniela, Lorena, Red Robin
- 8 - dark to very dark
- 9 - very dark

(19) (G) 05.03. Peduncle: abscission layer *

- 1 - absent Aledo, Bandera, Count, Lerica
- 9 - present Montfavet H 63.5, Roma

(21) (G) 05.04. Fruit: green shoulder (before maturity) *

- 1 - absent Felicia, Rio Grande, Trust
- 9 - present Daniela, Montfavet H 63.5



(25) (G) 05.04.01. Fruit: green stripes (before maturity) *

- 1 - absent Daniela
- 9 - present Green Zebra, Tigerella

(26) (G) 05.05. Fruit: size *

- 1 - very small Please indicate size in grams
- 2 - very small to small Please indicate size in grams
- 3 - small Please indicate size in grams
- 4 - small to medium Please indicate size in grams
- 5 - medium Please indicate size in grams
- 6 - medium to large Please indicate size in grams
- 7 - large Please indicate size in grams
- 8 - large to very large Please indicate size in grams



- 9 - very large

Please indicate size in grams

(28) (G) 05.06. Fruit: shape in longitudinal section *

- | | |
|---------------------------------------|--------------------------------------|
| <input type="radio"/> 1 - flattened | Campbell 28, Marmande VR |
| <input type="radio"/> 2 - oblate | Montfayet H 63.4, Montfayet H 63.5 |
| <input type="radio"/> 3 - circular | Cerise, Moneymaker |
| <input type="radio"/> 4 - oblong | Early Mech, Peto Gro |
| <input type="radio"/> 5 - cylindrical | Hypeel 244, Macero II, San Marzano 2 |
| <input type="radio"/> 6 - elliptic | Alcaria, Castone |
| <input type="radio"/> 7 - cordate | Valenciano |
| <input type="radio"/> 8 - ovate | Dualrow, Soto |
| <input type="radio"/> 9 - obovate | Duquesta, Estelle Rimone, Rio Grande |
| <input type="radio"/> 10 - pyriform | Europeel |
| <input type="radio"/> 11 - obcordate | Cuore del Ponente, Magno |

(29) 05.06.01. Fruit: ribbing at peduncle end *

- | | |
|---|--|
| <input type="radio"/> 1 - absent or very weak | Calimero, Cerise |
| <input type="radio"/> 2 - very weak to weak | |
| <input type="radio"/> 3 - weak | Early Mech, Hypeel 244, Melody, Peto Gro, Rio Grande |
| <input type="radio"/> 4 - weak to medium | |
| <input type="radio"/> 5 - medium | Montfayet H 63.4, Montfayet H 63.5 |
| <input type="radio"/> 6 - medium to strong | |
| <input type="radio"/> 7 - strong | Campbell 1327, Carmello, Count |
| <input type="radio"/> 8 - strong to very strong | |
| <input type="radio"/> 9 - very strong | Costoluto Fiorentino, Ingrid, Marmande VR |

(36) (G) 05.07. Fruit: number of locules *

- | | |
|---|-----------------------------------|
| <input type="radio"/> 1 - only two | Early Mech, Europeel, San Marzano |
| <input type="radio"/> 2 - two or three | Alphamech, Futuria |
| <input type="radio"/> 3 - three or four | Montfayet H 63.5 |
| <input type="radio"/> 4 - four, five or six | Raïssa, Tradiro |



- 5 - more than six Marmande VR

05.07.01. Do fruits of the variety reach maturity? *

- Yes
 No

05.07.02. LSL genes *

- 1 - absent
 9 - present

05.07.03. If LSL Genes present

- 1 - NOR gene homozygous
 2 - NOR gene heterozygous
 3 - RIN gene homozygous
 4 - RIN gene heterozygous
 5 - other gene

Please specify

05.07.04. Fruit: gel in locules *

- 1 - absent
 9 - present

(37) 05.08. Fruit: colour at maturity *

- | | |
|----------------------------------|------------------------------------|
| <input type="radio"/> 1 - cream | Jazon, White Mirabell |
| <input type="radio"/> 2 - yellow | Goldene Königin, Yellow Pear |
| <input type="radio"/> 3 - orange | Sungold |
| <input type="radio"/> 4 - pink | Aichi First |
| <input type="radio"/> 5 - red | Dianela, Ferline, Montfavet H 63.5 |
| <input type="radio"/> 6 - brown | Ozyrys |
| <input type="radio"/> 7 - green | Green Grape, Green Zebra |

(40) 05.08.01. Fruit: firmness *

- 1 - very soft Marmande VR
 2 - very soft to soft



- | | |
|---|--------------------------|
| <input type="radio"/> 3 - soft | Trend |
| <input type="radio"/> 4 - soft to medium | |
| <input type="radio"/> 5 - medium | Cristina |
| <input type="radio"/> 6 - medium to firm | |
| <input type="radio"/> 7 - firm | Fernova, Konsul, Tradiro |
| <input type="radio"/> 8 - firm to very firm | |
| <input type="radio"/> 9 - very firm | Dianela, Karat, Lolek |

(42) 05.08.02. Time of maturity *

- | | |
|---|--------------------------------|
| <input type="radio"/> 1 - very early | Dolcevita, Sungold, Sweet Baby |
| <input type="radio"/> 2 - very early to early | |
| <input type="radio"/> 3 - early | Bianca, Rossol, Shiren |
| <input type="radio"/> 4 - early to medium | |
| <input type="radio"/> 5 - medium | Gourmet, UC 82B |
| <input type="radio"/> 6 - medium to late | |
| <input type="radio"/> 7 - late | Arletta, Durinta |
| <input type="radio"/> 8 - late to very late | |
| <input type="radio"/> 9 - very late | Dianela |

(43) (G) 05.09. Resistance to *Meloidogyne incognita* (Mi) *

- | | |
|--|-----------------------|
| <input type="radio"/> 1 - susceptible | Casaque Rouge |
| <input type="radio"/> 2 - moderately resistant | Campeon, Tyonic |
| <input type="radio"/> 3 - highly resistant | Anahu x Casaque Rouge |

(44) (G) 05.10. Resistance to *Verticillium* sp. (Va and Vd) - Race 0 *

- | | |
|-----------------------------------|------------------------|
| <input type="radio"/> 1 - absent | Anabel, Marmande verte |
| <input type="radio"/> 9 - present | Daniela, Marmande VR |

(45.1) (G) 05.11. Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 0EU/1US *

- | | |
|-----------------------------------|--|
| <input type="radio"/> 1 - absent | Marmande, Marmande verte, Resal |
| <input type="radio"/> 9 - present | Gourmet, Larissa, Marporum, "Marporum x Marmande verte", Mohawk, Motelle, Riesling |

(45.2) (G) 05.12. Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 1EU/2US *

- | | |
|----------------------------------|---|
| <input type="radio"/> 1 - absent | Cherry Belle, Marmande verte, Marporum, Ranco, Roma |
|----------------------------------|---|



- 9 - present Agostino, "Mottelle x Marmande verte", Odisea, Tradiro

(48.1) (G) 05.13. Resistance to *Tomato mosaic virus (ToMV)* - Strain 0 *

- 1 - absent Monalbo, Moneymaker
- 9 - present Mobaci, Mocimor, Momor, Moperou

06 . Similar varieties and differences from these varieties

Please note that information on similar varieties may help to identify comparable varieties and can avoid an additional period of testing.

06.01. Are there any similar varieties known? *

- Yes
- No

06.02. Similar varieties and differences from these varieties: *

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety

07 . Additional information which may help to distinguish the variety

07.01. In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety? *

- Yes, specify
- No

07.02. Are there any special conditions for growing the variety or conducting the examination? *

07.02.01. Type of culture *

- in the greenhouse
- in the open field

07.02.02. Details of type of culture *

- staked
- semi-staked
- non-staked



07.02.03. Main use *

- fresh market or garden
- industrial processing (indicate type)
- pot plant
- rootstock

07.02.03.01. Details of fresh market/industry

- single
- truss
- other

Please specify

07.02.03.02. Details of industry

- peel
- paste
- other

Please specify

07.02.04. Are there any special conditions for growing the variety or conducting the examination? *

- Yes
- No

07.03. Other information

07.03.01. Resistances to pests and diseases (please specify races/strains if possible) *

The examination offices test the resistances based on the resistance test protocols listed in the CPVO-TP in force. In case the applicant does assess the resistance based on a different protocol than the one mentioned in the CPVO-TP, please be aware that this could lead to discrepancies between your declaration and the results obtained by the examination office. This may also have important consequences on the conduct of the DUS testing as well as trigger additional tests and fees. In addition, for some resistances an alternative DNA marker test exists. As the phenotype is always leading, the declaration in this Technical Questionnaire should not be based on such DNA marker test only.

(45.3) 07.03.01.01. Resistance to *Fusarium oxysporum* f. sp. *lycopersici* (Fol) - Race 2EU/3US *

- absent



- present
- not tested

(46) 07.03.01.02. Indeterminate types: Resistance to *Fusarium oxysporum* f. sp. *radicis-lycopersici* (Forl) *

- absent
- present

(46) 07.03.01.02. Determinate varieties only: Resistance to *Fusarium oxysporum* f. sp. *radicis-lycopersici* (Forl) *

- absent
- present
- not tested

(47.1) 07.03.01.03. Resistance to *Passalora fulva* Race 0 *

- absent
- present
- not tested

(47.2) 07.03.01.04. Determinate types: Resistance to *Passalora fulva* Group A *

- absent
- present
- not tested

(47.2) 07.03.01.04. Indeterminate types: Resistance to *Passalora fulva* Group A *

- absent
- present

(47.3) 07.03.01.05. Determinate types: Resistance to *Passalora fulva* Group B *

- absent
- present
- not tested

(47.3) 07.03.01.05. Indeterminate types: Resistance to *Passalora fulva* Group B *

- absent
- present

(47.4) 07.03.01.06. Determinate types: Resistance to *Passalora fulva* Group C *



- absent
- present
- not tested

(47.4) 07.03.01.06. Indeterminate types: Resistance to *Passolora fulva* Group C *

- absent
- present

(47.5) 07.03.01.07. Determinate types: Resistance to *Passolora fulva* Group D *

- absent
- present
- not tested

(47.5) 07.03.01.07. Indeterminate types: Resistance to *Passolora fulva* Group D *

- absent
- present

(47.6) 07.03.01.08. Determinate types: Resistance to *Passolora fulva* Group E *

- absent
- present
- not tested

(47.6) 07.03.01.08. Indeterminate types: Resistance to *Passolora fulva* Group E *

- absent
- present

(48.2) 07.03.01.09. Resistance to *Tomato mosaic virus* (ToMV) strain 1 *

- absent
- present
- not tested

(48.3) 07.03.01.10. Resistance to *Tomato mosaic virus* (ToMV) strain 2 *

- absent
- present
- not tested



(49) 07.03.01.11. Resistance to *Phytophthora infestans* (Pi) *

- absent
- present
- not tested

(50) 07.03.01.12. Resistance to *Pyrenochaeta lycopersici* (PI) *

- absent
- present
- not tested

(51) 07.03.01.13. Resistance to *Stemphylium* spp. (Ss) *

- absent
- present
- not tested

(52) 07.03.01.14. Determinate types: Resistance to *Pseudomonas syringae* pv. *tomato* (Pst) *

- absent
- present

(52) 07.03.01.14. Indeterminate types: Resistance to *Pseudomonas syringae* pv. *tomato* (Pst) *

- absent
- present
- not tested

(53) 07.03.01.15. Resistance to *Ralstonia solanacearum* race 1 (Rs) *

- absent
- present
- not tested

(54) 07.03.01.16. Resistance to *Tomato yellow leaf curl virus* (TYLCV) *

- absent
- present
- not tested

(55) (G) 07.03.01.17. Resistance to *Tomato spotted wilt virus* (TSWV) - Strain 0 *



- absent
- present

(56) 07.03.01.18. Resistance to *Leveillula taurica* (Lt) *

- absent
- present
- not tested

(57) 07.03.01.19. Resistance to *Oidium neolycopersici* (On) (ex *Oidium lycopersicum* (Ol)) *

- absent
- present
- not tested

(58) 07.03.01.20. Resistance to *Tomato torrado virus* (ToTV) *

- absent
- present
- not tested

07.03.01.21. Other resistances

Please specify

07.03.02. Other information *

- Yes, specify
- No

07.04. Photo

It is highly recommended to provide pictures (especially fruits at maturity). Otherwise, the organisation of the technical examination will be rendered less efficient, with the risk of an additional year of technical examination at the costs of the applicant.

Documents to be attached

08 . GMO-information

08.01. GMO-information required *

The variety represents a Genetically Modified Organism within the meaning of Article 2(2) of Council Directive EC/2001/18 of 12/03/2001.



Yes

If yes, please attach in point 08.02 a copy of the written attestation of the responsible authorities stating that a technical examination of the variety under Articles 55 and 56 of the Basic Regulation does not pose risks to the environment according to the norms of the above-mentioned Directive.

No

08.02. In case of GMO, joint attestation of the responsible authorities stating that a technical examination of the variety under Articles 55 and 56 of the Basic Regulation does not pose risks to the environment according to the norms of the above-mentioned Directive.

Documents to be attached

